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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,975	12/29/2005	Takeshi Karato	2593-0158PUS1	3613
2292 7590 04/03/2009 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER MULCAHY, PETER D				
ART UNIT		PAPER NUMBER		
1796				
NOTIFICATION DATE		DELIVERY MODE		
04/03/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

### Office Action Summary

**Application No.**

10/562,975

**Applicant(s)**

KARATO ET AL.

**Examiner**

Peter D. Mulcahy

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-85/86)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date 12/29/05

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 1 is in product-by-process form. The recitation of the process steps is unclear and renders the claims indefinite. The sequence of steps is not clearly set forth. It is unclear as to when the filtering step takes place relative to the co-coagulating, dehydrating and drying. Clarification is required.
4. "A cross-linking molding" as per claim 5 is unclear. This is not art recognized terminology. It is not understood how this limits the claim. The language "molded by crosslinking" is not understood. There is no molding step. Crosslinking is not understood as a molding step. Clarification is required.
5. The process steps of claim 9 are unclear. It is not understood how the term "for" further limits the process steps. This appears to broaden the process step beyond the actual step as claimed. Clarification is required.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-8 are rejected under 35 U.S.C. 102(b or e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over any one of Yanagisawa et al. US 2003/0088006 or Karato US 6,602,942 or JP-2001-213971.

9. These claims are directed to a silica-containing composition intended to be limited by claimed process steps. This is considered a product-by-process type claim. The courts have well established that these type claims are limited by the product as claimed. These particular claims have no compositional limitations that distinguish it from the compositions of the prior art as identified herein.

10. Each of the cited documents comprises silica containing rubber compositions. The silica incorporated can have the surface area as requisite claim 3 and the crosslinking agents of claim 4, see JP 2001-213971 at [0017], Kurato at column 11 lines

33+ and Yanagisawa et al. [0035] and [0100]. In view of this disclosure the claims are not novel.

11. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagisawa et al. US 2003/0088006 or Karato US 6,602,942 or JP-2001-213971.

12. As cited supra, the cited patents are directed to silica containing rubber compositions. With respect to claim 9, the art renders the process steps as claimed. Mixing and co-coagulating the silica and rubber dispersions is discussed at [0015] of JP 2001-213971, [0036] of Yanagisawa et al. and Karato at column 8 lines 66. Filtering the rubber crumb is discussed at column 9 lines 14+ at Karato, [0094] of Yanagisawa et al. and [0016] of JP 2001-213971. It should be noted that rinsing and washing are seen to be functional equivalents of filtering. Dehydrating and drying under pressure are disclosed at [0044] of JP 2001-213971, [0044]-[0045] and [0096] of Yanagisawa et al. and column 9 lines 44+. The difference between the cited art and the claimed invention is that there are no anticipatory examples. The art discusses the claimed process steps but does not specifically direct one to practice the claimed steps in the claimed order. One having ordinary skill in the art would be motivated to practice the claimed invention given that each of the ingredients and process steps are known and recognized as beneficial when processing and formulating rubber compositions. As such one having ordinary skill in the art would have found the claimed invention prima facie obvious at the time of invention.

13. The specific process steps of claims 12 and 13 are considered obvious or anticipated from the cited art. These claims are directed to a process wherein the

extruder is "blocked" during pressure dehydrating. The art shows pressure dehydration using an extruder. The extruder would need to be blocked so as to create sufficient pressure so as to dehydrate the rubber composition. The art does not state that the extruder is left open during pressure dehydration.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter D. Mulcahy whose telephone number is 571-272-1107. The examiner can normally be reached on Mon.-Fri. 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Peter D. Mulcahy/  
Primary Examiner, Art Unit 1796